

Application No. 10/021,629
Response Dated 07/25/2005
Reply to Office Action of 03/25/2005

PATENT
Agent's Docket No. 12560-US

Amendments to the Specification:

Please replace paragraph(s) [0033], [0043], [0044], [0050], [0054] and [0059] with the following corresponding amended paragraph(s):

[0033] Further information regarding persistence entity support is provided in co pending U.S. Patent Application bearing ~~Attorney Docket Serial Number 11922-US-10/021,080~~ filed on even date entitled "NETWORK MANAGEMENT SYSTEM ARCHITECTURE" which is incorporated herein by reference.

[0043] Operations declared for a particular managed entity object type are inherited by managed entity object types derived therefrom. Preferably all operations are implemented as free functions having a global scope. Name spaces are used in specifying the function name implementing the operation. The declared operations corresponding to derived managed entity object types are tallied up in a dictionary of operations 330 which is made available to the software applications 210.

[0044] In accordance with the invention, the same subsequent operation may be declared more than once, in the managed entity object type hierarchy, overriding previously declared operations with respect to an ancestor managed entity object type. The subsequent operation is inherited only in an inheritance tree derived from the managed entity object type for which the subsequent operation was declared. Polymorphism is implemented by looking-up each operation as it is invoked in the dictionary of operations 330. An example of a dictionary having polymorphic OnLine and OffLine operations is shown at 330 in FIG. 3.

[0050] On start up 402, the framework 200 loads up the shared library (.so) files 232 registering 234 the enabling technology plug ins 230. The attribute files 222, if any 424, are also loaded up 404 and processed 406 by the framework 200. In processing 406 an attribute file 222, a corresponding managed entity object type (300) is derived 408, optionally, the methods associated with the managed entity object type, parsed 224 from the attribute file 222, are registered 410 and the corresponding .dll file 226 is loaded 228 by the framework 200.

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[0054] In accordance with the preferred embodiment of the invention, the framework 200 makes available the dictionary of operations 330 and publishes a standard interface for the software applications 210 to interact with instances 206 of managed entity object types.

[0059] The operation is performed in step 434 by using the corresponding implementor function. The performed operation may return a value as well as "out" and "inout" parameters. Consistency checks 435 are performed on the return value, and the parameters. Errors are reported on finding any discrepancies. Else the parameters are packaged in step 436 and a response message 437 is sent back to the software application 210. The software application 210 unpackages 446 the return value. If 447 the return value relates to an error, the software application 210 reports the error. Otherwise the parameters are unpacked 448 and the software application 210 continues execution.